

**REMARKS**

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The present invention as set forth in Claims 1, 21, 24 and 26 includes a toner which comprises toner particles comprising, *inter alia*, **a particulate material which is present in at least a surface portion of the toner particles while embedded into the surface portion,**

wherein the binder resin has a glass transition temperature not lower than 35°C and lower than 55°C, and wherein the particulate material has an average particle diameter of from 0.002 to 0.2 times that of the toner particles;

**wherein the particulate material comprises a particulate resin having a glass transition temperature of from 40 to 100°C;**

**wherein the particulate resin is crosslinked using a crosslinking agent;**

wherein the binder resin comprises tetrahydrofuran-insoluble components in an amount of from 2 to 30 % by weight; and

wherein the particulate resin has a weight average molecular weight of from 9,000 to 200,000, and wherein the particulate resin is included in the toner particles in an amount of from 0.5 to 5.0 % by weight based on total weight of the toner particles.

The rejection of Claims 1, 3, 8-12 and 15-27 under 35 U.S.C. § 103(a) over Yagi et al, and the rejection of Claim 28 over Yagi et al are respectfully traversed.

As acknowledged by the Examiner, Yagi et al fail to disclose or suggest a particulate material which is present in at least a surface portion of the toner particles while embedded into the surface portion (see page 10 of the Office Action). In addition, there is no disclosure or suggestion in Yagi et al that the particulate material comprises a particulate resin which is crosslinked using a crosslinking agent.

It is well known that in a toner prepared by dissolving or dispersing a toner composition in a solvent to prepare a toner composition liquid, granulating the toner composition liquid in an aqueous medium, removing the solvent therefrom, and washing the particles followed by drying to prepare mother toner particles, a particulate resin is adhered to the mother toner particles to prevent agglomeration of the mother toner particles and to prevent cleavage of the mother toner particles under high shearing conditions, resulting in formation of a toner having sharp particle diameter distribution. This method has a drawback in that the particulate resin is swollen or dissolved, and thereby the entire surface of the mother toner particles is covered with a film of the resin.

**Since a film of the resin covers the entire surface of the mother toner particles, the toner has poor low temperature fixability even when the mother toner particles have a low glass transition temperature** (Applicants wish to draw the Examiner's attention to paragraph [0188] of the specification).

As described in paragraph [0188], the entire surface of the mother toner particles is covered by the swollen or softened particulate resin, resulting in formation of a continuous layer (i.e., a shell).

The particulate resin which is crosslinked using a crosslinking agent (claimed in the amended Claims) has a crosslinked structure, and therefore has high mechanical strength. In addition, the particulate resin is hardly softened even when contacted with a solvent. Therefore, the particulate resin maintains its form of particle while embedded into the surface of the mother toner particles. Accordingly, the resultant toner has good low temperature fixability, which is the original low temperature fixability of the mother toner particles.

This effect can be understood from Example 5. The toner of Example 5 has a good combination of low temperature fixability, offset resistance, preservability and transferability, and particularly, the minimum fixing temperature and offset resistance of the toner are

improved. The effect is such that by using a particulate resin prepared by using a crosslinking agent, the particulate resin can maintain its form of particle while embedded into the surface of the mother toner particles, resulting in impartment of good low temperature fixability to the toner is a remarkable effect which is not disclosed or suggested by the reference or is not derived from the reference. Paragraphs [0187] to [0190] of the present specification are as follows.

[0187] The surface of the toner particles is preferably covered by the particulate resin at a cover rate of from 40 to 80 % while the particulate resin is embedded into the toner surface.

[0188] When the surface of the toner particles is covered by a continuous layer (i.e., a shell), the toner has poor fixing property. However, when the surface is covered by a discontinuous layer (i.e., a particulate resin), the toner has good fixability and good preservability. This is because the binder resin of the toner easily adheres to a receiving material during fixing (resulting in improvement of good fixability), while contact areas of toner particles decrease (resulting in improvement of preservability).

[0189] The particulate resin for use in the toner of the present invention preferably has a Tg of from 40 to 100 °C and more preferably from 55 to 100 °C. When the Tg is too low, the resultant toner has poor preservability, and when the Tg is too high, the resultant toner has poor low temperature fixability.

[0190] In addition, when the particulate resin is crosslinked, the toner has good mechanical strength. In this case, the particulate resin has good resistance to organic solvents used for preparing toner particles, and thereby the particulate resin is present on the surface of the toner particles while maintaining its form.

In addition, the Examiner has acknowledged that Yagi et al fail to disclose or suggest that the binder resin has a glass transition temperature not lower than 35°C and lower than 55°C, and that the particulate material has an average particle diameter of from 0.002 to 0.2 times that of the toner particles; that the particulate material comprises a particulate resin having a glass transition temperature of from 40 to 100°C; that the binder resin comprises tetrahydrofuran-insoluble components in an amount of from 2 to 30 % by weight, and that the particulate resin has a weight average molecular weight of from 9,000 to 200,000. (See pages 7 and 10 of the Office Action).

The Examiner argues that based on the disclosure of the specification the toner of Yagi et al has the same properties. However, not all toners having the claimed composition

necessarily have the claimed properties. The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' "

Also, "[a]n invitation to investigate is not an inherent disclosure" where a prior art reference "discloses no more than a broad genus of potential applications of its discoveries." *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1367, 71 USPQ2d 1081, 1091 (Fed. Cir. 2004).

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original)

Moreover, the criticality of the above properties has been discovered by the inventors of the present invention is not at all disclosed in Yagi et al. The only reason the Examiner knows that the claimed properties are important, is because the Examiner uses improper hindsight. In addition, it is not obvious in view of Yagi et al. to use a binder resin and a particulate resin having the above properties, particularly in view of the substantial lack of disclosure in Yagi et al.

Application No.: 10/670,320

Reply to the Office Action dated: October 20, 2006

Therefore, the rejection of Claims 1, 3, 8-12 and 15-27 under 35 U.S.C. § 103(a) over Yagi et al, and the rejection of Claim 28 over Yagi et al are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of these rejections is respectfully requested.

Regarding the **provisional** double patenting rejection, the MPEP instructs the Examiner to withdraw the provisional rejection if it is the only issue remaining in one case and convert the provisional rejection in the other application to a double patenting rejection. MPEP 822.01.

Applicants respectfully request that the Examiner acknowledge that **all references** cited in the Information Disclosure Statement, filed in the above-identified application on August 31, 2006, have been considered. Notably, **references AA and AW were not initialed**. For the Examiner's convenience **a courtesy copy of Form PTO 1449 as filed on August 31, 2006, is attached herewith**.

Applicants respectfully request that the Examiner acknowledge that **the Lists of Related Cases filed November 22, 2006, December 12, 2006 and herewith** have been considered.

Application No.: 10/670,320

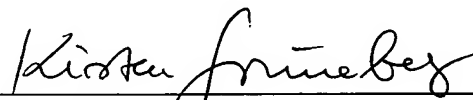
Reply to the Office Action dated: October 20, 2006

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

Customer Number  
**22850**

  
\_\_\_\_\_  
J. Derek Mason, Ph.D.  
Registration No. 35,270

Kirsten A. Grueneberg, Ph.D.  
Registration No.: 47,297

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
NFO:KAG: